

pecially in Iowa. Preparation of seed beds and planting made slow progress during the second decade, due to wet soil. Very little work was possible in Iowa and Missouri, but seeding made good advance in the Great Plains, except in some eastern parts. Continued unfavorable weather further delayed corn planting in the main parts of the belt the last part of the month, with some sections reporting this work two to three weeks late. In the Southwest and most of the Great Plains planting was favored while in the South conditions were rather favorable, though warmer weather was needed.

Cotton.—Much preparation of soil was possible in the Cotton Belt during the first decade, except for some locally wet sections. Some cotton was planted as far north as extreme southern North Carolina to central Arkansas and locally to southeastern Oklahoma. Seeding made rapid progress in Georgia, was general in South Carolina, and in the west to west-central Texas. During the second decade the nights were rather too cool for best germination in the eastern belt, but planting made mostly satisfactory advance. Early plantings were completed in South Carolina, with some cultivation, and seeding progressed rapidly in Georgia with some fields ready to chop out in southern parts. Planting progressed in parts of Arkansas and Oklahoma, and in Texas growth and stands were mostly good with general condition fairly good to excellent.

During the last decade temperatures were mostly seasonable, although the nights were rather too cool for good germination in many sections. Planting progressed well in more eastern parts, but elsewhere east of the Mis-

issippi River frequent rains caused some delay, with many irregular stands reported. It was too cool and wet in much of Arkansas, but good progress was made in Oklahoma under favorable conditions. In Texas the weather favored planting, replanting, and chopping, and progress of the early-planted crop was good, with stands and general condition mostly satisfactory.

Miscellaneous crops.—Meadows and pastures did well in practically all sections east of the Mississippi River and ranges were generally satisfactory in the Great Plains. Some livestock were on range in Montana, but growth of grass was mostly slow; conditions were generally favorable in Wyoming until near the close, but the severe weather then prevailing was of short duration and losses were light. Satisfactory conditions prevailed elsewhere, except for some slow growth of grass, due to cool weather, in the Great Basin. Livestock did well generally, but there were continued reports of local losses to shorn sheep and young lambs.

Potato planting progressed during the month, and at the close had begun north to the northern border States. Truck crops did well, except for some frost injury to tender varieties during the second decade. The unfavorable forcing of fruit which continued into the first decade resulted in rather widespread harm from the frosts of the second decade in the northern parts of the country, extending southward into the Appalachian region. Citrus needed rain in Florida, and toward the close of the month there were reports of fruit dropping; satisfactory condition was indicated in California.

551.506 (261.1)

WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

Over the greater part of the ocean the weather conditions during April would not be considered unusual, although the number of days with gales was above the normal along the American coast between Hatteras and Nova Scotia and also over a limited area in the middle section of the steamer lanes.

As shown in Table 1, the average pressure at three land stations on the British Isles was above normal, but the positive departures were not as large as in March. The North Atlantic high, while somewhat more active than in the previous month, was still less prominent than usual, and in consequence, at times easterly winds replaced the usual westerlies over the eastern section of the steamer lanes.

Fog was unusually prevalent over the Grand Banks and off the American coast north of the thirty-fifth parallel; it was reported on from 2 to 3 days in the vicinity of the British Isles, 1 day in the Gulf of Mexico, and not over 1 day in any 5° square on the steamer lanes between the twentieth and fortieth meridians.

On the 2d a low central near Sydney, Nova Scotia, was responsible for moderate westerly gales in the southerly quadrants, that continued until the 3d, although on the latter date the storm area had contracted somewhat in extent.

On the 6th a low was over the Straits of Belle Isle that moved rapidly eastward, and on the 7th moderate to strong gales accompanied by rain and hail prevailed over the steamer lanes between the thirtieth and forty-fifth meridians. From the 8th to 10th moderate weather was the rule, although a few vessels encountered winds of force 7 and 8 in different sections of the steamer lanes.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian). North Atlantic Ocean, April, 1929

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
	Inches	Inch (°)	Inches		Inches	
Julianehaab, Greenland.....	29.80		30.38	18th.....	29.08	11th.
Belle Isle, Newfoundland.....	29.84	+0.01	30.30	4th.....	28.80	25th.
Halifax, Nova Scotia.....	29.94	+0.01	30.38	12th.....	29.32	18th.
Nantucket.....	29.89	-0.08	30.36	3d.....	28.94	17th.
Hatteras.....	29.99	-0.04	30.50	3d.....	29.14	16th.
Key West.....	30.02	+0.01	30.26	3d.....	29.72	16th.
New Orleans.....	29.99	-0.05	30.32	4th.....	29.64	15th.
Cape Gracias, Nicaragua.....	29.91	-0.06	29.98	4th.....	29.82	10th. ⁴
Turks Island.....	30.09	+0.07	30.24	3d.....	29.90	16th. ⁴
Bermuda.....	30.17	+0.09	30.46	4th.....	29.70	17th.
Horta, Azores.....	30.03	-0.08	30.46	29th.....	29.66	9th.
Lerwick, Shetland Islands.....	29.96	+0.16	30.53	11th.....	29.57	27th.
Valencia, Ireland.....	30.04	+0.15	30.29	11th.....	29.47	28th.
London.....	29.99	+0.12	30.34	17th.....	29.43	29th.

¹ Average of 26 observations.

² No normal available.

³ From normals shown on Hydrographic Office Pilot Chart, based on observations at Greenwich mean noon, or 7 a. m., seventy-fifth meridian time.

⁴ And on other date or dates.

⁵ From normals based on 8 a. m. observations.

Charts VIII to XI show the conditions from the 11th to 14th, inclusive, when one disturbance prevailed over the middle and eastern sections of the ocean, and another off the American coast.

At the time of morning observation on the 15th the land station at Vera Cruz, Mexico, reported a barometer of 29.74 inches, wind north, force 8, with a maximum velocity of 64 miles an hour. No reports have been received from vessels in this vicinity or in any port of the Gulf of Mexico denoting any but moderate winds on that day, although an area of low pressure was over Alabama and Northern Florida with barometric readings of 29.56

and 29.58 inches at Pensacola and Jacksonville, respectively.

On the 16th the center of this Low was between New York and Nantucket and winds of hurricane force were encountered by vessels near the center, while the station at Atlantic City reported a northeast wind of 75 miles an hour, barometer, 29.10 inches. This disturbance moved but little during the next 48 hours, and decreased somewhat in intensity, although on the 17th westerly to southwesterly gales still prevailed between the Bermudas and Nova Scotia, and on the 18th between Hatteras and New York.

On the 18th a disturbance was over the Azores that increased in intensity as it moved northeastward, and on the 19th moderate to strong gales were over the eastern section of the southern steamer lanes, while on the 20th the storm area extended as far north as the fiftieth parallel.

On the 22d a moderate depression was central about 200 miles east of Nantucket and a second Low of somewhat greater intensity near 47° N., 35° W., while northwesterly gales occurred over the middle section of the

steamer lanes. On the 23d the western Low was central near Sable Island and on the 24th near Belle Isle. On both dates moderate gales prevailed between the fortieth and fiftieth parallels.

On the 26th the Province of Quebec was covered by an area of low pressure, and strong southwesterly gales were encountered along the American coast between Halifax and Jacksonville.

On the 27th a shallow depression was over the eastern section of the steamer lanes, that deepened as it moved eastward, and on the 28th moderate to strong northerly gales occurred over a limited area between the forty-fifth and fifty-fifth parallels, east of the tenth meridian. By the 29th the center of this Low was near the English Channel and favorable conditions were the rule, except for moderate northerly gales between the forty-ninth and fifty-fifth parallels and the tenth and fifteenth meridians.

On the 29th Portland, Me., was near the center of a Low that moved slowly northward and on the 30th was near Father Point, Quebec; moderate conditions prevailed on both days.

OCEAN GALES AND STORMS, APRIL, 1929

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
President Polk, Am. S. S.	Marseille	New York	40 37 N	69 37 W	Apr. 1	10 p, 1	Apr. 2	29.61	S	S, 6	WNW	WNW, 10	S-SW-WNW.
Exton, Am. S. S.	Alexandria	Boston	42 54 N	60 54 W	2	4 a, 2	2	29.65	SW	SW, 7	NW	W, 9	SW-W.
D. G. Scofield, Am. S. S.	New York	Colombia	38 31 N	73 49 W	4	4 a, 4	5	30.21	S	S, 4	SW	SW, 10	S-SW.
St. Dunstan, Br. S. S.	River Tyne	Galveston	41 08 N	37 49 W	6	Mdt, 6	7	29.50	S	S, 9	N	S, 9	S-W-N.
Schenectady, Am. S. S.	Gothenburg	Portland, Me.	48 03 N	42 05 W	7	1 a, 7	7	29.29	WNW	SW, 6	NW	WNW, 11	SW-NW.
Lepanto, Br. S. S.	Newcastle	New York	45 57 N	34 30 W	6	11 a, 7	7	29.53	SSE	SSE, 10	WNW	SSE, 10	SSE-W-WNW.
Georgie, Fr. S. S.	Antwerp	Guadeloupe	33 37 N	35 05 W	8	6 p, 8	8	29.46	SSW	S, 10	W	S, 10	S-W.
Barendrecht, Du. S. S.	Lisbon	Philadelphia	34 58 N	31 20 W	8	1 a, 9	9	29.22	S	S	WSW	S, 9	S-WSW.
Winnebago, Br. S. S.	Manchester	Bayonne, N.J.	48 53 N	31 44 W	9	4 a, 10	10	28.85	SE	WSW, 12	W	WSW, 12	SE-WSW.
New York, Ger. S. S.	Cuxhaven	New York	44 23 N	39 34 W	10	2 a, 11	11	28.96	SE	NNW, 12	NW	NNW, 12	SSW-WNW.
Berlin, Ger. S. S.	Bremen	do	40 38 N	68 26 W	12	4 p, 12	13	29.67	E	E, 8	N	E, 10	E-N.
West Zeda, Am. S. S.	Aberdeen	Gulfpport	52 08 N	29 52 W	11	10 p, 12	12	28.85	SE	SE, 11	S	SE, 11	SE-S.
Mercier, Belg. S. S.	New York	Antwerp	40 20 N	64 56 W	13	—, 13	14	29.68	E	E, 11	NNW	E, 11	—
Leviathan, Am. S. S.	do	Southampton	41 25 N	40 06 W	12	8 p, 13	13	29.70	NW	WNW, 8	WNW	NW, 10	NW-WNW.
Duivendrecht, Du. M. S.	New Orleans	Lands End	48 45 N	15 00 W	11	11 a, 13	13	29.60	SE	SSE, 9	SW	SSE, 9	SSE-SW.
Grootendijk, Du. S. S.	Canal Zone	Hamburg	49 40 N	6 50 W	11	4 p, 14	14	29.59	SSE	SSE, 8	SSW	SSE, 9	SSE-SSW.
West Madaket, Am. S. S.	Liverpool	Mobile	46 12 N	18 29 W	13	9 a, 14	15	29.35	S	W, 9	W	—, 10	S-SW-W.
Reliance, Ger. S. S.	New York	Hamburg	40 05 N	72 09 W	16	Noon, 16	16	29.04	NE	E, 10	E	ENE, 12	ENE-E.
Gulfpnce, Am. S. S.	Beverly, Mass.	Port Arthur	40 00 N	70 00 W	16	Noon, 17	19	28.90	E	S, 7	NW	E, 10	—
Erarch, Am. S. S.	Lisbon	New York	38 09 N	26 07 W	18	4 a, 18	19	29.68	N	W, 4	N	NNW, 10	N-NNW-N.
River Orantes, Br. S. S.	Gibraltar	do	36 28 N	25 30 W	19	—, 19	20	29.54	N	N, 9	N	N, 9	Steady.
Mississippi, Br. M. S.	New York	London	40 43 N	56 00 W	23	4 a, 23	24	29.43	W	W, 9	WNW	W, 10	W-WNW.
Rijndam, Du. S. S.	Rotterdam	New York	45 43 N	52 32 W	23	—, 24	24	28.79	SSE	SSW, 9	SW	SW, 10	S-WSW.
Yapalaga, Am. S. S.	Ayemouth	Savannah	32 30 N	77 08 W	25	4 p, 25	26	29.89	S	SSW, 9	WNW	SW, 9	SSW-WNW.
Tynefield, Br. M. S.	Liverpool	New York	41 00 N	65 38 W	25	8 a, 26	26	29.66	SW	SSW, 8	WSW	SSW, 10	SW-SSW.
Balsam, Am. S. S.	New York	Glasgow	62 09 N	22 59 W	27	8 a, 27	29	29.77	NNW	NNW, 7	NNE	N, 9	NNW-NNE.
NORTH PACIFIC OCEAN													
Dickenson, Am. S. S.	Midway Island	Honolulu	24 30 N	164 15 W	2	1 a, 2	2	29.95	NNE	NNE, 7	—	N, 8	NNE-N.
Paris Maru, Jap. S. S.	Yokohama	Vancouver	48 30 N	175 15 E	5	10 a, 6	6	29.10	ENE	S, 8	SSW	NNE, 9	E-SE-S.
Golden Hind, Am. S. S.	San Francisco	Yokohama	31 57 N	174 42 E	7	1 a, 7	7	29.97	NE	NE, 5	NE	NE, 8	Steady.
President Wilson, Am. S. S.	Honolulu	Kobe	33 31 N	144 55 E	8	6 a, 8	8	29.79	S	S, 8	N	S, 8	S-SW.
Havre Maru, Jap. S. S.	Yokohama	San Francisco	47 03 N	154 11 W	13	4 a, 13	14	29.31	WNW	WNW, 5	W	WNW, 8	Steady.
Kurohime Maru, Jap. S. S.	Muroran	Vancouver	49 20 N	132 32 W	13	11 p, 13	14	29.00	S	S, 8	SSW	S, 9	S-SSW.
Makiki, Am. S. S.	Seattle	Honolulu	44 19 N	132 35 W	15	Noon, 15	15	29.34	S	SW, 8	W	SW, 9	SW-W.
Nevada, Am. S. S.	Portland	Shanghai	39 10 N	136 51 E	21	Noon, 22	22	28.73	ENE	N, 5	WNW	NW, 11	ENE-N.
Tamaba, Br. S. S.	San Pedro	Osaka	33 13 N	142 36 E	21	Noon, 21	23	29.19	SW	WSW, 8	WNW	W, 9	WSW-W.
President Van Buren, Am. S. S.	Honolulu	Kobe	33 37 N	150 52 E	22	2 p, 22	23	29.82	WSW	W, 8	NW	W, 9	WSW-W.
Winifred O'Donnell, Am. S. S.	Manila	Los Angeles	43 55 N	147 43 W	23	4 p, 23	28	29.68	SE	SE, 6	SE	SE, 8	SE-S.
Dalblair, Br. S. S.	Shanghai	Vancouver	50 07 N	153 15 W	28	Mdt, 28	29	29.68	E	E, 8	E	E, 8	ENE-E.
Yogen Maru, Jap. S. S.	Columbia	Yokohama	47 42 N	160 34 E	28	8 p, 29	30	29.50	S	S, 8	WSW	S, 8	5 pts.
SOUTH PACIFIC OCEAN													
James McGee, Am. S. S.	Buenos Aires	Talara	50 18 S	77 24 W	1	Noon, 2	2	28.43	NW	NNW, 12	SW	W, 12	Steady.
Clydefield, Br. M. S.	River Plate	California	50 45 S	77 25 W	26	2 a, 28	29	29.29	NNW	NNW	WSW	NNW, 10	Steady.